



**Comments to the Department of Commerce**  
Office of the Secretary;  
U.S. Patent and Trademark Office;  
National Telecommunications and Information Administration

**Inquiry on Copyright Policy, Creativity, and Innovation in the Internet Economy**

**Docket No. 100910448-0448-01**

**Introduction and Executive Summary**

Google appreciates the opportunity to respond to this Notice of Inquiry on Copyright Policy, Creativity, and Innovation in the Internet Economy.<sup>1</sup> We agree with the goals of the Inquiry, which seeks to ensure effective means for rightsholders to be compensated, encourage innovation, and safeguard freedom of expression, due process, and privacy. We believe that effective policy-making in the copyright realm, as well as voluntary marketplace initiatives, can meet these laudable goals.

With respect to the first section of the NOI, addressing the interests of creators, we believe that the innovations brought about by the Internet economy have delivered, and will continue to deliver, enormous benefits to creators. Copyright law is intended to foster creative work that would not otherwise take place. Measured by this metric, digital copyright policies are doing very well. While online piracy remains a serious problem, the traditional mechanism of copyright—exclusive rights that facilitate investment and create markets—continues to bring to life a broad array of commercial creativity. And when it comes to online piracy, we believe that the best long-term strategy is to encourage the creation of more innovative, legitimate offerings in the marketplace by building on the new opportunities created by Internet technologies. While significant progress has been made in developing new business models, continuing inefficiencies in the licensing market (particularly where music publishing is concerned) are a serious impediment to the interests of creators and Internet intermediaries alike.

Both traditional commercial creators and new categories of creators are also being empowered by the *limitations and exceptions* to copyright law. Thanks to the Digital Millennium Copyright Act's (DMCA) safe harbors for online service providers and the fair use doctrine, online platforms like YouTube, Facebook, Twitter, Blogger, and Flickr have flourished, which in turn have unleashed new, and seemingly boundless, sources of creativity. As the Task Force evaluates the impact of copyright policies on incentives for creativity, we urge it to keep in mind that, today, copyright's limitations and exceptions are working alongside the exclusive rights in fostering an unprecedented level of commercial and noncommercial creative activity.

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<sup>1</sup>Inquiry on Copyright Policy, Creativity, and Innovation in the Internet Economy, 75 Fed. Reg. 61419, 61421 (Oct. 5, 2010) (hereafter "NOI").

The second section of the NOI, addressing the interests of intermediaries, implicitly recognizes that copyright is not just about cultural policy, but is also deeply entwined with our Nation's innovation policy. As the Supreme Court has recognized, "[t]he more artistic protection is favored, the more technological innovation may be discouraged; the administration of copyright law is an exercise in managing the trade-off."<sup>2</sup> In that regard, Google agrees with the NOI that the DMCA "safe harbor" regime and the Communications Decency Act's Section 230 (CDA 230) immunity for online republishers have "contributed significantly to expansion of the digital economy and both remain essential to promoting innovation and to protecting intellectual property online."<sup>3</sup> As described further below, we believe that the DMCA's "notice-and-takedown" approach has struck a sensible balance between the interests of intermediaries and those of copyright owners. The regime has also left room for voluntary efforts by Google and other private actors to address online infringement, as exemplified by YouTube's Content ID system and Google's antipiracy initiatives announced just last week, both described in more detail below.

Turning to the third section of the NOI addressing the interests of Internet users, it is plain that by fostering the enormous and rapid growth of online services, copyright policies have benefited the public at large. Google believes that education, transparency, and due process are crucial for a copyright policy that takes the legitimate interests of Internet users seriously. Google welcomes the opportunity to describe its experiences with implementing these principles in its efforts to address copyright infringement online.

Overall, Google believes that the copyright policies set out in Title 17 and as developed in the courts, while not perfect, are functioning well, both to foster innovation and creativity. Where particular failings have been identified, it is our view that private, voluntary, inter-industry efforts hold the most promise for near-term improvements that can adapt quickly to dynamic changes in the Internet economy.

## About Google

Founded in 1998, the year the DMCA was enacted, Google Inc. has grown to be one of America's most successful publicly traded companies, providing an array of services that are drivers of the global Internet economy. Google contributes to the U.S. economy in a wide variety of ways. For example:

- Google employs more than 23,000 full-time employees worldwide and is proud to be creating American jobs in a difficult economy. In the third quarter of 2010 alone, Google hired more than 1,500 new employees and expects to continue to hire aggressively for the remainder of the year.<sup>4</sup>
- Google generated an estimated \$54 billion in economic activity in the United States in 2009.<sup>5</sup>

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<sup>2</sup>*Metro-Goldwyn-Mayer Studios Inc. v. Grokster, Ltd.*, 545 U.S. 913, 928 (2005).

<sup>3</sup>NOI at 61421.

<sup>4</sup>See [http://investor.google.com/earnings/2010/Q3\\_google\\_earnings.html](http://investor.google.com/earnings/2010/Q3_google_earnings.html).

<sup>5</sup>See Google, Google's Economic Impact: United States 2009 (2009), available at [http://www.google.com/economicimpact/pdf/google\\_economicimpact.pdf](http://www.google.com/economicimpact/pdf/google_economicimpact.pdf).

Google is also increasingly international in its operations, joining other U.S. Internet companies in contributing to the balance of trade:

- Google has more than 60 offices in over 20 countries.
- Google revenues from outside of the United States comprised 53 percent of total revenues in the first quarter of 2010.
- More than half of Google searches come from outside the United States.

Balanced and sensible copyright policies play a key role in many aspects of Google's operations. As a major software developer, Google is itself the owner of substantial copyright assets. As an Internet intermediary, our ability to deliver the online services used by millions of users every day depends on a copyright environment that does not chill investment and innovation. And as a responsible corporate citizen, Google recognizes its role in both fostering existing markets and developing entirely new ones that reward creators rather than infringers.

### **NOI Section 1: Rights Holders**

Copyright law is intended to foster creative work that would not otherwise take place. Today, creators are engaging in more creative activity across a wider array of media than ever before, and are making money in more and new ways. This outcome is a testament to a U.S. copyright policy that balances the needs of rights holders, Internet users, and technology innovators. The growth of the Internet, in particular, has unleashed an unprecedented outpouring of creativity from a staggering diversity of creators, many of whom would not have become creators or found audiences in a pre-Internet era. Thus, while the Task Force reports hearing “that online copyright infringement is depriving U.S. copyright owners of their rights and compensation, and causing substantial economic harm to the copyright industries, their employees, independent authors and artists, and the U.S. economy as a whole,”<sup>6</sup> a narrow focus on the challenges posed by infringement tells an incomplete story.

And while copyright infringement online remains a problem, there are many signs that new licensed online services have been making impressive inroads against illicit alternatives. These trends suggest that meeting consumer demand in the digital marketplace with compelling legitimate offerings is perhaps the most promising strategy to combat piracy. Offerings from Hulu, YouTube, Netflix, Amazon, and iTunes are thriving, demonstrating that you can, in fact, “compete with free.” It is in facilitating and coaxing these new offerings into existence that policy-makers can make their biggest contribution. Google has been closely involved with rights holders to develop avenues for licensed content distribution, but the government must continue its efforts to help private parties overcome the obstacles that continue to plague many areas of content licensing (particularly of musical compositions), both in the U.S. and abroad.

### **The State of the Market: Traditional Copyright Industries**

Today, the traditional mechanism of copyright—exclusive rights that facilitate investment and create markets—continues to provide incentives that support a broad array of commercial creativity. More

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<sup>6</sup>NOI at 61422.

music is being commercially released than ever before.<sup>7</sup> Even in the midst of a serious recession, box office receipts are at a historic high.<sup>8</sup> More books are being published.<sup>9</sup> The entertainment software industry continues to thrive.<sup>10</sup>

Moreover, new business models online are showing dramatic growth, demonstrating that U.S. consumers are willing to pay for content online if it is convenient and attractively priced. For example, Netflix and Amazon have, in a few short years, pioneered the on-demand streaming market for television and movie content.<sup>11</sup> Similarly, online download stores (like Apple's iTunes Music Store, now the #1 retailer of music in America) continue to flourish, selling licensed content to consumers despite the existence of unauthorized sources. In fact, between 2006 and 2009, overall music purchases as measured by Nielsen have increased by 50%.<sup>12</sup> This suggests that while record label revenues have continued to fall, online piracy is only part of a larger story, as consumer preferences shift toward singles over albums. This insight is further borne out by a recent survey submitted by Warner Music Group to the FCC that suggests that only 13% of music consumers are "avowed pirates," and even those consumers can be reached by new market offerings.<sup>13</sup> Meanwhile, Amazon reports strong growth in the ebooks market, with its Kindle ebook editions now outselling

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<sup>7</sup>The fragmented nature of the music market makes it difficult to do a census of music releases. Nevertheless, by nearly any metric, it is plain that there is more music being released than ever before. For example, consider that TuneCore—a service that helps independent artists make their works available through iTunes and other stores—issued 90,000 new releases in 2009. That is nearly as much music as that released by labels, as measured by Nielson. See <http://blog.tunecore.com/2010/01/nielsen-says-tunecore-is-responsible-for-100-of-the-music-releases-in-2009-and-oh-yeah-we-are-a-majo.html>. Of course, even this comparison misses the myriad musicians who are reaching the market directly through MySpace, YouTube, and many other platforms. For example, more than 13 *million* bands have sites on MySpace. See Jon Swartz, *Once Fading MySpace Focuses on Youthful Reincarnation*, USA Today, Mar. 10, 2010, available at [http://www.usatoday.com/tech/techinvestor/corporatenews/2010-03-10-myspace10\\_CV\\_N.htm](http://www.usatoday.com/tech/techinvestor/corporatenews/2010-03-10-myspace10_CV_N.htm).

<sup>8</sup>See MPAA Market Statistics (2009), available at <http://mpaa.org/Resources/091af5d6-faf7-4f58-9a8e-405466c1c5e5.pdf> ("Worldwide box office for all films reached \$29.9 billion in 2009, up 7.6% over 2008's total.").

<sup>9</sup>See Bowker Industry Report (2009) at <http://www.bowkerinfo.com/bowker/IndustryStats2010.pdf>.

<sup>10</sup>The entertainment software industry has shown particularly strong growth in recent years. See Entertainment Software Ass'n, *Video Games and the Economy*, <http://www.theesa.com/gamesindailylife/economy.asp>.

<sup>11</sup>See Greg Sandoval, *Netflix Delights Studios with Big Checks*, CNET News.com (July 29, 2010), [http://news.cnet.com/8301-31001\\_3-20012024-261.html](http://news.cnet.com/8301-31001_3-20012024-261.html); Brooks Barnes, *In Hollywood, Everybody's a Digital Revolutionary*, N.Y. Times (July 24, 2010) (digital sales of movies and TV programs generated \$1.1 billion in the first six months of the year, up 23 percent from the period last year), <http://www.nytimes.com/2010/07/25/business/25steal.html>.

<sup>12</sup>See Jeff Price, *The State of The Music Industry & the Delegitimization of Artists* (Oct. 14, 2010), <http://blog.tunecore.com/2010/10/music-purchases-and-net-revenue-for-artists-are-up-gross-revenue-for-labels-is-down.html>.

<sup>13</sup>"Consumer Insights Discussion for FCC" (April 2010) available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7020409067> ("Pay for a small portion of music acquisitions, but they still spend some money annually ... 30% of this segment frequently discover music via new media platforms").

hardcover books,<sup>14</sup> and online markets for “apps” designed for mobile platforms (such as Google’s Android Market and Apple’s iTunes App Store) are also showing remarkable growth.<sup>15</sup>

In some cases, new business models are translations of the old—moving from selling a physical product to selling a digital one. In other cases, new platforms are opening up new revenue streams and access models. For example, content creators large and small are using YouTube to promote their works and make money. YouTube has over ten thousand content partners, including major movie and TV studios and every major record label, along with dozens of independents and myriad individual artists. They upload their content to YouTube and allow advertising to be run alongside their content. In turn, YouTube gives the majority of the ad revenue to the content partner.<sup>16</sup> Today, hundreds of YouTube creators are making six figures a year, and there are 2 billion monetized views every week (50% growth over the past year).

Content creators are not only making money by delivering their content to fans in new ways. Fans are also engaging with and remixing content themselves, and rightsholders are beginning to embrace this user-generated creativity as a new way to make money. Consider, for example, how content creators are now monetizing user-generated videos. As will be discussed further below, over 1,000 content partners use YouTube’s Content ID system to identify when user-generated content on YouTube includes their copyrighted works. Though they could choose to automatically block this material, the majority of these partners choose instead to monetize it.

In short, ours is not a “nation of pirates,” and consumers are ready and willing to pay for content online if it is made available on attractive terms. Similarly, a recent academic study of NBC’s temporary withdrawal from the iTunes Store revealed an immediate uptick in infringing activity, suggesting that consumers prefer a legitimate online source, even where it requires payment, over unauthorized sources.<sup>17</sup>

Unfortunately, there continue to be serious obstacles to licensing in some industries. For example, numerous thorny issues continue to impede the efficient licensing of digital music, particularly musical compositions. This is an area where government leadership can help break logjams, a role that the Copyright Office has been playing in the area of Section 115 reform.<sup>18</sup> In addition, the problem of orphan works has also been an obstacle to the creation of efficient online markets for

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<sup>14</sup>Annalyn Censky, *Amazon Sells More Kindle Books Than Hardcovers*, CNN.com (July 19, 2010) at [http://money.cnn.com/2010/07/19/technology/amazon\\_sells\\_more\\_kindles\\_than\\_books/index.htm](http://money.cnn.com/2010/07/19/technology/amazon_sells_more_kindles_than_books/index.htm).

<sup>15</sup>In just the past six months, the number of applications available in Android Market has gone from 50,000 to over 100,000. Over 300,000 iPhone apps are now available on Apple’s iTunes App Store. See <http://www.apple.com/iphone/apps-for-iphone/>.

<sup>16</sup>It is YouTube’s policy to only run advertising on a video watch page when we have received the appropriate permission from relevant rightsholders. In other words, YouTube does not make money from video watch pages directly unless content partners are making money; YouTube succeeds when our partners succeed.

<sup>17</sup>Brett Dannaher, Michael D. Smith, et al., *Converting Pirates Without Cannibalizing Purchasers: The Impact of Digital Distribution on Physical Sales and Internet Piracy* (March 3, 2010), available at <http://ssrn.com/abstract=1381827>.

<sup>18</sup>Statement of Marybeth Peters, Register of Copyrights, before the House Subcommittee on Courts, the Internet, and IP (June 21., 2005), available at: <http://www.copyright.gov/docs/regstat062105.html>.

copyrighted works. Google continues to support legislation that would make these works more available to the public where the rights holder cannot be found with reasonable efforts.<sup>19</sup>

For the past several years U.S. copyright policy has focused on enforcement issues. During that time, three enforcement-related legislative measures were adopted, while other measures aimed at fostering the growth of licensed services did not make progress. While we understand the Task Force's interest in current technologies used to detect and respond to infringements online, we hope the Task Force will also consider directing additional attention to market-creating measures such as those discussed above.

There are also a variety of steps that can be taken in the marketplace to ensure that legitimate sources for copyrighted works continue to thrive and draw consumer attention. For our part, as part of antipiracy initiatives announced last week,<sup>20</sup> we intend to experiment to make authorized preview content more readily accessible in search results. We believe that most users want to access legitimate content and are interested in sites that make that content available to them (even if only on a preview basis). We will be looking at ways to make this content easier to index and find. This builds on the experience of Google's "Music One Box" efforts, introduced in 2009, which surface authorized, playable music content to users when they search for certain music-related terms (e.g., artist name, album title, song title, lyrics).<sup>21</sup>

In sum, we urge the Task Force not to be taken in by "sky is falling" rhetoric regarding the impact of the Internet on incumbents in the copyright industries. Technology requires markets to adapt, and change can be hard for market incumbents. But progress in the market is happening, and both consumers and creators are benefiting from the Internet in profound ways. Taking steps to encourage innovation and the further development of these markets is a critical element of the fight against infringement online.

### **The State of the Market: New Creators**

The growth of the Internet has also demonstrated the importance to creativity of the *limitations and exceptions* to copyright law, particularly the DMCA's safe harbors for online service providers and the fair use doctrine. These limitations to copyright have made online platforms like YouTube, Facebook, Twitter, Blogger, and Flickr possible, which in turn have unleashed a new, and seemingly boundless, source of creativity. The lesson is plain—limits on copyright are every bit as important as exclusive rights when it comes to fostering and monetizing creative expression.

Creative expression is at the center of the recent growth of the Internet. The combination of inexpensive personal computers, audio and video tools, and the Internet has resulted in the unprecedented explosion of creative activity that defines participatory media (also known as "user generated content"). The audience is increasingly taking up the tools of authorship. The sheer quantity of these new forms of authorship is staggering, and growing rapidly:

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<sup>19</sup>We first explained our views on this subject in comments to the Copyright Office more than 5 years ago: <http://www.copyright.gov/orphan/comments/OW0681-Google.pdf>.

<sup>20</sup>See Kent Walker, Making Copyright Work Better Online, Google Public Policy Blog (Dec. 2, 2010), <http://googlepublicpolicy.blogspot.com/2010/12/making-copyright-work-better-online.html>.

<sup>21</sup>Google Blog (Oct. 29, 2009), <http://googleblog.blogspot.com/2009/10/making-search-more-musical.html>.

- On YouTube, over 35 hours of video are uploaded *each minute*. Put another way, YouTube users create and upload more video content *each month* than the combined output of all three major U.S. television networks for the *past 60 years*.<sup>22</sup> The YouTube audience views approximately 2 billion videos each day.
- On Blogger, 250,000 words are written each minute. That's 360 million words a day. More than a *half trillion* words have been written on Blogger since its launch in 1999.
- Flickr users upload more than 3,000 photos each minute, and have uploaded a total of more than 5 *billion* images to the service.<sup>23</sup>
- Sites like MySpace and SoundCloud are stimulating musicians to record and distribute new works in record numbers. More than 13 *million* bands have a presence on MySpace.<sup>24</sup>

A large portion of this new creativity is non-commercial, but that is not always the case. We have moved from a world of limited shelf space and limited (i.e., expensive) content delivery mechanisms to a world of abundance, where distribution costs are falling closer and closer to zero. With minimal resources, artists can now reach a broad audience and be discovered—for instance, before becoming a top selling pop artist, Justin Bieber was discovered through a homemade video uploaded by his mother to YouTube.<sup>25</sup> Moreover, artists who could never have reached a broad audience in the analog world now can compete and succeed on a more level playing field. For example, Julia Nunes is a songwriter who mostly plays guitar and ukulele. She joined YouTube in March of 2006, while a student at Skidmore College. Today, her channel has over 180,000 subscribers and nearly 6 million views.<sup>26</sup> She sells CDs from her own website and tours the country as an independent artist. A local neighborhood record store likely does not have a ukulele section—but on the Internet, there is room for every niche, every artist, and every fan.

Copyright policy has played an important role in bringing about this new creativity. Much of it would never have occurred—or, at least, would not have been able to reach a broad audience—but for the existence of YouTube, Blogger, Flickr, Myspace, and similar platforms. As discussed further below, the development of the platforms for participatory media has depended on copyright policies that strike the right balance between fostering innovation and protecting exclusive rights.

The fair use doctrine has also played an important role. Of the millions of users of Google services, most likely never realize how many of those services (as well as similar services provided by

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<sup>22</sup>See Hunter Walk, Great Scott! Over 35 Hours of Video Uploaded Every Minute to YouTube, YouTube Blog (Nov. 10, 2010), <http://youtube-global.blogspot.com/2010/11/great-scott-over-35-hours-of-video.html>.

<sup>23</sup>See Flickr Blog, 5,000,000,000 (Sept. 19, 2010), <http://blog.flickr.net/en/2010/09/19/5000000000/>.

<sup>24</sup>See Jon Swartz, *Once Fading MySpace Focuses on Youthful Reincarnation*, USA Today, Mar. 10, 2010, available at [http://www.usatoday.com/tech/techinvestor/corporatenews/2010-03-10-myspace10\\_CV\\_N.htm](http://www.usatoday.com/tech/techinvestor/corporatenews/2010-03-10-myspace10_CV_N.htm).

<sup>25</sup>“Justin Bieber Thanks YouTube for his success,” Oklahoma City Examiner (November 10, 2010), available at: <http://www.examiner.com/pop-culture-in-oklahoma-city/justin-bieber-thanks-youtube-for-his-success>; “Justin Bieber is Living the Tween Idol Dream,” New York Times (December 31, 2009), available at: [http://www.nytimes.com/2010/01/03/fashion/03bieber.html?\\_r=1](http://www.nytimes.com/2010/01/03/fashion/03bieber.html?_r=1).

<sup>26</sup>Julia Nunes' YouTube Channel can be found at <http://www.youtube.com/user/jaaaaaaa>.



Google’s competitors) depend on the fair use doctrine.<sup>27</sup> Beginning in 2003, U.S. courts have recognized that fair use principles can and should protect search engine providers from liability for the copying necessary to provide their services.<sup>28</sup> Similarly, the Ninth Circuit Court of Appeals recently recognized that browser cache copies should be understood to be fair uses, lest the act of visiting a website create liability for Internet users.<sup>29</sup> And the Copyright Office recently recognized that fair use has an important role in protecting noncommercial video “remix” creativity.<sup>30</sup> These rulings have thus made room within the framework of copyright law for many of the Internet technologies that have been so crucial to stimulating creativity, free expression, and our First Amendment values in recent years.

Without a robust fair use doctrine and well-balanced limitations on liabilities for intermediaries, many of the online platforms for creativity that we take for granted might never have made it off the ground. Moreover, without similar doctrines in place in foreign markets, U.S. companies will find it increasingly difficult to rollout similar services in other markets. Accordingly, Google believes the government has a role to play with our trading partners, pressing them to adopt exceptions and limitations that parallel those in U.S. copyright law. There is a long-standing imbalance in trade agreements: exclusive rights are made mandatory, but limitations and exceptions are not. This places innovative companies like Google that rely on limitations and exceptions to copyright at a serious disadvantage. Our current trade policy must be changed to reflect the contributions of innovative companies and the role that limitations and exceptions play in making them possible.

## **NOI Section 2: Internet Intermediaries**

Google welcomes the opportunity to share its experience collaborating with copyright owners to develop tools and processes that help them control their content online, while protecting the legitimate interests of Internet users. We strongly endorse the “safe harbor” provisions of the DMCA, which have provided copyright owners with expeditious recourse when they discover infringement online, while also giving service providers like Google the certainty necessary to invest in the services that millions of Americans rely on each day, helping the United States lead in the global information economy. By focusing on the infringement itself, rather than intermediaries, the DMCA minimizes the risk of overbroad censorship through the inadvertent blocking of legitimate free expression online. At the same time, Google has gone beyond the requirements of the DMCA safe harbors, including developing innovative tools like the Content ID systems deployed by YouTube. And just last week, Google announced additional voluntary initiatives to assist copyright owners.

### **Importance of DMCA safe harbors**

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<sup>27</sup>See generally CCIA, Fair Use in the U.S. Economy: Economic Contribution of Industries Relying on Fair Use (2010) (describing importance of fair use to many industries),

<http://www.cciainet.org/CCIA/files/ccLibraryFiles/Filename/000000000354/fair-use-study-final.pdf>.

<sup>28</sup>See *Kelly v. Arriba Soft Corp.*, 336 F.3d 811 (9th Cir. 2003).

<sup>29</sup>See *Perfect 10 v. Amazon.com*, 487 F.3d 701, 726 (9th Cir. 2007).

<sup>30</sup>See U.S. Copyright Office, Recommendation of the Register of Copyrights, Rulemaking on Exemptions from Prohibition on Circumvention of Technological Measures that Control Access to Copyrighted Works, at 49-52 (June 11, 2010) available at <http://www.copyright.gov/1201/2010/initialed-registers-recommendation-june-11-2010.pdf>.



Congress laid the legal foundation for the modern Internet era when it enacted the DMCA in 1998, the same year that Google was founded. Congress recognized that robust online communications would be chilled if service providers faced unlimited damages claims based on material that their users posted or transmitted. The DMCA thus created a set of “safe harbors” against monetary liability for service providers who respond properly to copyright holders’ notifications of alleged infringement. That policy choice set the stage for the growth of ISPs, web hosting services, and search engines in the early days of the Internet, and has more recently enabled the growth of a new generation of websites devoted to social and user-generated content, letting individuals the world over express themselves and form new communities through blog posts, social networks, photography, and video.

As Congress recognized in enacting the DMCA, “without clarification of their liability, service providers may hesitate to make the necessary investment in the expansion of the speed and capacity of the Internet.”<sup>31</sup> Online services today commonly allow millions of users to contribute to a global conversation and participate in a global ecommerce marketplace. While the vast majority of those contributions are entirely lawful, inevitably some will not be. Without the protections of the safe harbors, the possibility of statutory damages—multiplied by thousands of works—could jeopardize innovation on the Internet.

The importance of the DMCA’s safe harbors to the continued development of online services cannot be overstated. Internet intermediaries are a critical component of nearly every interaction online. When a user sends an email, the user must rely on service providers to connect to the Internet, to process and send the email to its destination, and to store that email until it is read by its recipient. When a user offers an item for sale in an online auction site or classified listing, a service provider must host the offer. When a proud parent wants to show friends and family the latest picture or video of a growing child, a service provider needs to provide the infrastructure to host it and allow people to view it. None of these examples suggests an unlawful enterprise, yet the services that support them each can be used in manners that infringe copyright. If those service providers were held liable for each act of infringement by their users, serious questions would be raised about their ability to offer the services we all depend on every day. If the misdeeds of a tiny minority of Internet users chilled the development of these technologies, it would unjustly punish all those who use the Internet for entirely legitimate purposes—scholarship, ecommerce, political speech, education, entertainment—each day.

## **Notice-and-Takedown**

At the heart of the safe harbor regime is a notice-and-takedown procedure that requires cooperation between content owners and service providers. To qualify for the safe harbor, a service provider that provides hosting services or information location tools must expeditiously remove purportedly infringing materials when notified of their existence and location on its service. This regime gives copyright holders a quick and efficient way to stop misuse of their content, while preventing the risk of liability from stifling technological innovation and chilling free speech. In this way, the DMCA balances the proprietary interests of copyright holders against those of online services and the free expression interests of their users.

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<sup>31</sup>S. REP. NO. 105-190 (1998) at 8, available at [http://www.hrrc.org/File/S\\_Rept\\_105-190.pdf](http://www.hrrc.org/File/S_Rept_105-190.pdf).

Google has implemented notice-and-takedown procedures across its services as envisioned by the DMCA (as described below, Google also voluntarily offers tools to copyright owners that go beyond the requirements of the DMCA). While takedown notices are received for far less than 1% of all the materials hosted and indexed by Google, the scale of Google's services means that the number of takedowns are nevertheless substantial in absolute terms. The following metrics convey a flavor of the scale at which Google operates:

- YouTube users have uploaded more than 500 million videos to the service.
- Blogger users have published more than 500 billion words on the service.
- While we do not disclose the size of our Web Search index, Google researchers in 2008 discovered that the size of the World Wide Web overall exceeded 1 trillion unique URLs, with the number growing by several billion pages per day.<sup>32</sup>

In light of the scale and global nature of the services offered by Google, the task of receiving, reviewing, and responding to DMCA takedown notices is a big job, and Google maintains a growing team of employees dedicated to the task. From this enormous universe of videos, blog posts, and web pages, we anticipate that copyright owners will call on Google to disable access to approximately 3 million allegedly infringing URLs during 2010.

The DMCA takedown notices that Google receives are remarkably diverse along many dimensions. For example, so far in 2010 we have received DMCA takedown notices from more than 70 countries, in a wide variety of languages. The scope of the takedown notices also varies widely: while the vast majority of takedown notices identify fewer than 10 URLs, other takedown notices will contain thousands of URLs in a single submission. Notices are delivered through a wide array of mechanisms, including paper letters, faxes, emails, and web form submissions. DMCA takedown notices are also submitted by many different kinds of copyright owners, including not only major mainstream movie studios, record labels, and software companies, but also adult entertainment vendors, needlepoint pattern publishers, governments, and individuals. The volume of takedown notices has been rising rapidly in recent years, as copyright owners have improved their ability to detect infringements and submit large numbers of allegedly infringing URLs for removal.

The volume and diversity of takedown notices obviously presents challenges for Google. Nevertheless, Google responds expeditiously to these notices as required by the DMCA. The details of the takedown review process vary from product to product. Generally speaking, when we receive a DMCA takedown notice, the notice is first reviewed by a member of Google's removals team in order to determine whether it complies with the statutory requirements, includes the information we need to locate the infringing activity or material, is not duplicative, and is not an abuse of the takedown process. If the notice appears valid, we will disable access to the allegedly infringing material or links. To the extent we are able, we also generally attempt to notify the user whose material has been removed, in order to afford the user an opportunity to submit a counter-notice in the event the removal is unjustified.

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<sup>32</sup>Official Google Blog, We Knew the Web Was Big... (July 25, 2008), <http://googleblog.blogspot.com/2008/07/we-knew-web-was-big.html>.

The review process for DMCA takedown notices is a critical part of Google's effort to responsibly balance the needs of copyright owners with those of Internet users and the public. Many takedown notices, when initially submitted, are incomplete, demonstrate a misunderstanding of copyright law, or are otherwise deficient. For example, a *majority* of DMCA takedown notices received for Google products other than YouTube are deficient when initially received by Google's removal team. In many of those cases, further communication with the rights holder will perfect the notice. But in others, the notice simply fails to meet the requirements of the DMCA.

Review is also important in order to weed out intentional abuse of the takedown system, as one recent example vividly illustrates. Earlier this year, Google was informed that an individual impersonating an author of religious books was sending takedown notices in order to purposefully censor related videos from YouTube. Before the subterfuge was discovered, the impostor had used DMCA takedown notices to remove more than 1,000 lawful videos. Those takedown notices also resulted in the termination of several innocent YouTube users as repeat infringers. Fortunately, after an investigation by the YouTube removals team, these removals were reversed. Although in this particular instance the review process initially failed to detect the abuse of the takedown system, in many other circumstances the review process prevents the abusive removal.

The turnaround time for responding DMCA notices fluctuates with the level of the global workload of the removals team, whether the notice as submitted includes all relevant information, and other factors. It also may vary based on the particular product at issue. We aim to respond to valid DMCA notices as quickly as resources allow and are proud of our accomplishments in this regard, given the challenges noted above. As Judge Louis Stanton recently noted in the litigation between Viacom and YouTube: "[T]he present case shows that the DMCA notification regime works efficiently: when Viacom over a period of months accumulated some 100,000 videos and then sent one mass takedown notice on February 2, 2007, by the next business day YouTube had removed virtually all of them."<sup>33</sup>

At the same time, we are constantly working to improve the DMCA takedown process for both copyright owners and Internet users, including the use of technology where appropriate. So, for example, in early 2006, YouTube rolled out an easy-to-use tool that enables copyright holders to search for videos, mark those that allegedly infringe, and request their removal with the click of a button, rather than having to prepare individual paper or email DMCA notices. Copyright owners who utilize this tool, known as the Content Verification Program (CVP),<sup>34</sup> will usually see infringing videos removed within seconds of submitting a notice. The YouTube team, however, closely monitors usage of the CVP tool in order to ensure that those who abuse it to target noninfringing videos are ejected from the program. In addition, YouTube also makes an easy-to-use tool available as part of the Content Management System (CMS) that rightsholders access as part of the Content ID system described below. In this way, rightsholders can efficiently manage their removals preferences from a single interface and submit the necessary information for a takedown notice electronically.

Just last week, Google announced a further initiative to develop electronic submission tools to improve the takedown submission process for other Google products (starting with Blogger and

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<sup>33</sup>Viacom Int'l Inc. v. YouTube, Inc., 2010 WL 2532404, at \*9 (S.D.N.Y. June 23, 2010).

<sup>34</sup>See [http://www.youtube.com/t/copyright\\_program](http://www.youtube.com/t/copyright_program).

Web Search).<sup>35</sup> This effort will depend on cooperative efforts aimed at eliminating unnecessary manual data entry tasks and the inadvertent submission of incomplete information. For copyright owners who use the tools responsibly, we will reduce our average response time to 24 hours or less. The tools will be developed over the next several months and should be of considerable assistance to those who submit DMCA takedown notices in substantial volumes.

As further discussed below, we also remain committed to protecting the legitimate interests of Internet users and the broader public as we improve the takedown process for copyright owners. For example, Google made a number of changes to the DMCA removals process for Blogger to respond to user feedback.<sup>36</sup> We will also be making improvements to the counter-notice process for users whose content has been improperly targeted for removal, drawing on lessons that we have learned on products like YouTube. In addition, Google continues to forward takedown notices to Chilling Effects for analysis and publication after appropriate redaction.

### **Terminating Repeat Infringers**

In addition to the notice-and-takedown procedure, online service providers wishing to avail themselves of the DMCA safe harbors must notify subscribers of, and reasonably implement, a policy of terminating repeat infringers in appropriate circumstances.<sup>37</sup> Google has implemented repeat infringer policies on all relevant products, including YouTube, Blogger, Picasa, AdWords, and AdSense. In each of these products, repeat infringer terminations constitute far fewer than 1% of the total subscriber accounts. Moreover, Judge Stanton recently endorsed YouTube's repeat infringer policy as fully compliant with the requirements of the DMCA.<sup>38</sup>

### **Collaborative Efforts with Rights Holders**

In creating this carefully calibrated DMCA regime, Congress decided that copyright holders, rather than service providers, should bear the primary responsibility for identifying unauthorized uses of copyrighted materials. As several courts have recognized, the "DMCA notification procedures place the burden of policing copyright infringement—identifying the potentially infringing material and adequately documenting infringement—squarely on the owners of the copyright."<sup>39</sup> As Judge Stanton put it recently in ruling on the *Viacom v. YouTube* case, "[t]hat makes sense, as the infringing works in suit may be a small fraction of millions of works posted by others on the service's platform, whose provider cannot by inspection determine whether the use has been licensed by the owner, or whether its posting is a 'fair use' of the material, or even whether its copyright owner or licensee objects to its posting."<sup>40</sup> (In fact, sometimes creators themselves have a hard time determining the copyright status of their own materials—pop-sensation Justin Bieber recently

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<sup>35</sup>See Kent Walker, Making Copyright Work Better Online, Google Public Policy Blog (Dec. 2, 2010), <http://googlepublicpolicy.blogspot.com/2010/12/making-copyright-work-better-online.html>.

<sup>36</sup>See Rick Klau, A Quick Note About Music Blog Removals, Blogger Buzz Blog (Feb. 10, 2010), <http://buzz.blogger.com/2010/02/quick-note-about-music-blog-removals.html>.

<sup>37</sup>See 17 U.S.C. 512(i).

<sup>38</sup>See *Viacom Int'l Inc. v. YouTube, Inc.*, 2010 WL 2532404, at \*13 (S.D.N.Y. 2010).

<sup>39</sup>*Perfect 10, Inc. v. CCBill LLC*, 488 F.3d 1102, 1113 (9th Cir. 2007); see also *UMG Recordings v. Veoh Inc.*, 665 F. Supp. 2d 1100, 1112 (C.D. Cal. 2009).

<sup>40</sup>*Viacom Int'l Inc. v. YouTube, Inc.*, 2010 WL 2532404, at \*9 (S.D.N.Y. 2010).

uploaded his new music video to his YouTube channel, only to find it removed by his own record label!<sup>41)</sup>

Google, however, does far more than simply await compliant DMCA takedown notices. In fact, Google has been an industry leader in developing innovative measures that go beyond the requirements of the DMCA.

In February 2007, YouTube started using audio identification technology licensed from a company called Audible Magic. That same year, YouTube launched a more advanced content-identification system, called “Content ID”, which uses audio *and* video identification technology developed by Google engineers specifically for use on YouTube. To date, Google has expended more than 50,000 engineering hours and more than \$30 million to develop the Content ID system. This powerful technology scans every one of the hundreds of millions of videos uploaded to YouTube and, within seconds, compares each with a library of more than 4 million reference files provided by participating copyright holders. If a match is identified, the system automatically applies the content owner’s instructions about what to do: whether to block the matching video from appearing on YouTube, track how users are watching it, or monetize the video by permitting advertisements to be shown alongside it.<sup>42</sup>

Here is how it works. A participant can send us original audio or video content or a reference file that they prepare themselves. Content ID is very flexible and allows partners to define different policies for each video asset and also for different territories, which can be crucial given the complexities of global content distribution. When a subsequently uploaded video is matched, the content owner “claims” it and the policy associated is applied to the matched content, and the video is either blocked, monetized or tracked to receive viewing metrics. The entire matching and management process occurs in real-time, before each uploaded video is published on YouTube. This happens immediately for all new uploads, and we also scan our entire “legacy” library of videos for matches against newly-added reference files. The system also observes the principles of due process—if a YouTube user believes that a claim on her video is in error, she has the opportunity to dispute it, and her upload then can proceed (a copyright owner remains free to submit a DMCA takedown if it concludes, after review, that the video is infringing).

Content ID has proven to be an enormous success and is being used by a long list of content owners worldwide to make their own choices about how, where, when, or whether they want their content to appear on YouTube:

- More than 1,000 partners use Content ID, including every major U.S. network broadcaster, movie studio and record label;
- More than 100 million videos have been claimed with Content ID;
- We have over 4 million reference files, comprising more than 300,000 hours of reference material—the most comprehensive database of its kind in the world;

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<sup>41</sup>See Oliver Chiang, Justin Bieber Swears Off YouTube For Facebook, Unwittingly Steps In Copyright Minefield, Forbes.com (Nov. 30, 2010), <http://blogs.forbes.com/oliverchiang/2010/11/30/justin-bieber-swears-off-youtube-for-facebook-unwittingly-steps-in-copyright-minefield/>.

<sup>42</sup>See David King, Content ID Turns Three, YouTube Blog (Dec. 2, 2010), <http://youtube-global.blogspot.com/2010/12/content-id-turns-three.html>.



- Content ID scans over 100 years of video every day;
- The majority of our Content ID partners choose to monetize their content on YouTube;
- Over 1/3 of YouTube's monetized views are made possible by Content ID;
- Content ID has led directly to a significant increase in monetizable partner inventory, as our Content ID partners are seeing claimed content significantly increase their number of monetizable views. Rights holders who claim their content with Content ID generally more than double the number of views against which we can run ads, doubling their potential revenue.
- In the last quarter alone, claims to make money from videos increased 200%.

Thanks to tools like Content ID, copyright holders repeatedly have praised YouTube, both for its service generally as well as for its efforts and tools to help combat copyright abuse. In 2006, for example, the Motion Picture Association of America (MPAA) told the press: "YouTube has been a good corporate citizen and taken off copyrighted material."<sup>43</sup> That same year, NBC hailed YouTube as a "bright light" on copyright protection and proclaimed that:

YouTube is the perfect online media partner to promote NBC's marquee entertainment to their audience and explore new and creative ways to harness the power of viral video in a manner that respects copyrights. We applaud YouTube for their continued willingness to work with us to remove any unauthorized NBC content and protect our copyrighted material. We are thrilled to be partnering with this forward- thinking company.<sup>44</sup>

Warner Music similarly lauded YouTube's "commitment to creating a framework in which the needs of [its] users and copyright holders can coexist in a mutually beneficial environment."<sup>45</sup>

In some cases, YouTube's sophisticated content management tools have yielded dramatic results for copyright owners. In June 2009, Jill Peterson and Kevin Heinz's wedding party transformed a familiar and predictable tradition into something spontaneous and fun, as their wedding party danced down the aisle to R&B star Chris Brown's song "Forever." Their "JK wedding video" became an overnight sensation, accumulating more than 10 million views on YouTube in less than one week (and more than 58 million views to date). The record label that owns the rights in "Forever" used Content ID to claim and monetize the song, and they ran "Click-to-Buy" links over the video, giving viewers the opportunity to purchase the music track quickly and easily on Amazon or iTunes. Riding the popularity of the JK wedding video, Chris Brown's "Forever" had a second life—more than a year after its initial release, it peaked at #4 on the iTunes singles chart and #3 on Amazon's best selling MP3 list.

Just last week, we announced several additional initiatives that will be developed over the next several months, including preventing terms that are closely associated with piracy from appearing in

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<sup>43</sup>Andrew Wallenstein, Viral Video Site Poses Challenge for Hollywood, MSNBC.com, Mar. 21, 2006, <http://www.msnbc.msn.com/id/11945604/>.

<sup>44</sup>See YouTube & NBC Team for Cross Platform Video Promotions, Search Engine Journal (June 27, 2006), <http://www.searchenginejournal.com/youtube-nbc-team-for-cross-platform-video-promotions/3581/>.

<sup>45</sup>Press Release, Warner Music Group and YouTube Announce Landmark Video Distribution and Revenue Partnership, Sept. 18, 2006, [http://www.hiphoppress.com/2006/09/warner\\_music\\_gr-6.html](http://www.hiphoppress.com/2006/09/warner_music_gr-6.html).



Autocomplete and improving our anti-piracy review for our advertising services.<sup>46</sup> In addition, Google has already implemented a variety of other voluntary measures to combat infringement online:

- YouTube has deployed “hashing” technology that creates a unique digital signature for each video removed in response to DMCA takedown notices and automatically prevents identical copies of the removed video from being reposted.
- As mentioned above, YouTube provides content owners with electronic notification and takedown tools (CVP and CMS), to help them more easily identify their material and send a takedown notice with the click of a mouse.
- We have also deployed web forms in connection with a variety of products (Blogger, AdWords, AdSense, Android Market, 3D Warehouse, Picasa) to provide additional streamlined options for rights holders. We also accept DMCA takedowns in email for those who wish to provide multiple URLs.

## Internet Users

The NOI seeks information regarding policy mechanisms that might “provide a measure of balance on behalf of Internet users who access and/or create online content,”<sup>47</sup> including efforts to educate users about copyright law and experiences with the DMCA’s “counter-notice and putback” regime intended to afford Internet users some measure of redress against abusive or mistaken takedown notices. Google strongly believes that user education, transparency, and due process are critical elements of balanced copyright policy online.

With respect to raising user awareness regarding copyright and mechanisms used to address infringement online, Google makes relevant information available to users in a variety of forms. For example, YouTube provides a “Copyright Tips” page to help users understand the basics of copyright law<sup>48</sup>; repeatedly reminds users, via multiple messages displayed each time they upload a clip, that they are prohibited from uploading copyrighted content unless they have the right to do so; and publishes a variety of help pages intended to explain the Content ID and DMCA takedown procedures to users.<sup>49</sup> Moreover, YouTube has a detailed counter-notice submission flow that informs users of the requirements for, and potential consequences of, filing a formal DMCA counter-notice.<sup>50</sup> Similarly, Blogger has published help pages intended to explain DMCA takedown and counter-notice procedures to users,<sup>51</sup> as well as several blog posts specifically describing on-going improvements to Blogger’s DMCA takedown procedures.<sup>52</sup>

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<sup>46</sup>See Kent Walker, Making Copyright Work Better Online, Google Public Policy Blog (Dec. 2, 2010), <http://googlepublicpolicy.blogspot.com/2010/12/making-copyright-work-better-online.html>.

<sup>47</sup>NOI at 61423.

<sup>48</sup>See [http://www.youtube.com/t/howto\\_copyright](http://www.youtube.com/t/howto_copyright).

<sup>49</sup>See [http://www.youtube.com/t/dmca\\_policy](http://www.youtube.com/t/dmca_policy) and <http://www.youtube.com/t/contentid>.

<sup>50</sup>See

<http://www.google.com/support/youtube/bin/answer.py?answer=59826&query=counter&topic=&type=>.

<sup>51</sup>See <http://www.google.com/support/blogger/bin/answer.py?hl=en&answer=157170>;

<http://www.google.com/support/blogger/bin/answer.py?hl=en&answer=157218>.

<sup>52</sup>See Rick Klau, Let the Music Play, Blogger Buzz Blog (Aug. 26, 2009),

<http://buzz.blogger.com/2009/08/let-music-play.html>; Rick Klau, A Quick Note About Music Blog

Google believes that the statutory counter-notice procedures are a crucial part of the DMCA regime. While most DMCA takedown notices are submitted in good faith, some are mistaken, unfounded, or even intended to censor legitimate speech off the Internet. While as a percentage of all takedown notices, the percentage that are improper may be small, the consequences for free expression, public discourse, and Internet users can be serious, as both Senator John McCain and now-President Barack Obama discovered during the 2008 Presidential campaign when their campaign ads were targeted by takedown notices directed to YouTube.<sup>53</sup> The example of the impostor described above is another example of the way that the DMCA process can be abused by those intent on censorship, rather than copyright protection. In other cases, the notice is from the correct copyright owner, but targets activity that is not, in fact, infringing. Twice, for example, Google has decided to restore political YouTube videos after concluding that the use of copyrighted material was clearly a fair use.<sup>54</sup> The Center on Democracy and Technology (CDT) recently released a report that collects similar stories of DMCA takedown notices being used to target political campaign ads that have strong fair use defenses.<sup>55</sup> Similarly, YouTube has seen examples of governments using copyrights owned by national broadcasters as a pretext for censoring videos that criticize government policies.

As described above, Google's internal review process represents an effort to weed out notices that are unfounded or otherwise abusive. But unilateral efforts by Google will never be enough —users are often in the best position to know when their activities are being unfairly targeted by bogus copyright allegations. As a result, transparency and due process are critical elements in a balanced policy regime. Google fosters transparency in several ways:

**User Notice:** Across its services, Google attempts to notify users when their content has been the subject of a DMCA takedown notice. On YouTube, for example, users are sent an email and notified in their YouTube user dashboard when a DMCA takedown is received for a video they have uploaded. Similar procedures are used on Blogger, AdWords, AdSense, and other Google services.

**Public Disclosure:** Google cannot always identify or easily notify the party whose material has been targeted for removal (for example, when DMCA notices are received for Web Search); we nevertheless make an effort to document and publicly disclose the fact that

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Removals, Blogger Buzz Blog (Feb. 10, 2010), <http://buzz.blogger.com/2010/02/quick-note-about-music-blog-removals.html>.

<sup>53</sup>See Center for Democracy & Technology, Campaign Takedown Troubles: How Meritless Copyright Claims Threaten Online Political Speech (Sept. 2010) at 6-9 (describing several campaign advertisements taken down due to DMCA complaints) (hereafter "CDT Campaign Takedown Troubles"), <http://www.cdt.org/report/campaign-takedown-troubles-how-meritless-copyright-claims-threaten-online-political-speech>.

<sup>54</sup>See Ben Sheffner, Copyright Battle in Ohio Gov. Race over Use of Clip to Expose 'Steelworker' as Actor, Copyrights & Campaigns Blog (Oct. 7, 2010), <http://copyrightsandcampaigns.blogspot.com/2010/10/copyright-battle-in-ohio-gov-race-over.html>; Ben Sheffner, YouTube Restores National Organization for Marriage Video Early, Citing Fair Use, Copyrights & Campaigns Blog (May 7, 2009), <http://copyrightsandcampaigns.blogspot.com/2009/05/youtube-restores-national-organization.html>.

<sup>55</sup>See CDT Campaign Takedown Troubles at 4-13.

content has been removed. So where DMCA takedown notices for Web Search are concerned, Google forwards DMCA takedown notices to Chilling Effects,<sup>56</sup> a nonprofit group that collects, redacts, and makes available these notices for public study and research. Google also notifies Web Search users when results that would have appeared have been removed by DMCA takedown notices, generally by posting a notice of the following form at the bottom of the results page:

*In response to a complaint we received under the US Digital Millennium Copyright Act, we have removed 1 result(s) from this page. If you wish, you may read the DMCA complaint that caused the removal(s) at [ChillingEffects.org](http://ChillingEffects.org).*

Similarly, when a video has been removed on YouTube as the result of a DMCA takedown notice, or when a user-created channel has been terminated due to repeated notices, YouTube posts a notice explaining the reason for the removal on the page where the video or channel formerly appeared.

While the counter-notice process is invoked in response to only a small fraction of takedown notices we receive, it provides valuable recourse for users who believe their online expression has been unfairly targeted by copyright allegations. In order to vindicate similar due process values, Google also allows YouTube users to “dispute” Content ID blocks on their videos, resulting in automatic restoration of the video unless a formal DMCA takedown notice is received (which Content ID partners are able to send easily from the Content ID management interface).

While the DMCA’s counternotice and putback provisions are an important accommodation to the legitimate interests of Internet users, in our experience, the procedure nevertheless falls short for users in several respects. First, it is not clear whether users can submit notices anonymously (through counsel, for example). Where political speech is being targeted for removal by government actors, for example, the possibility for anonymous counter-notice can be important. In addition, the formal counter-notice procedure presents a daunting “all-or-nothing” choice to users, requiring that a user submit to court jurisdiction and hazard a lawsuit as a condition of restoring their content. In some cases, a simple channel of communication between user and rights holder could resolve the matter. Unfortunately, DMCA takedown notices often do not provide users with an effective channel of communication back to the copyright owner (for example, because the takedown notice was submitted by an anti-piracy enforcement vendor, rather than the copyright owner itself).

Google appreciates the opportunity to share its perspectives and experience with the Task Force. We will keep the Task Force apprised as Google continues to gather additional relevant information and launch new initiatives designed to address the problem of online copyright infringement.

Sincerely,



Pablo L. Chavez  
Director of Public Policy  
Google, Inc.

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<sup>56</sup>See <http://chillingeffects.org>.